

WHAT IS CLAIMED IS:

1. A diffuser panel for a rear projection screen for diffusing light, comprising
first reflecting elements for condensing incident light to substantially one spot
5 or one line, periodically provided in at least one direction between a light incident surface
and a light exiting surface.

2. A diffuser panel for diffusing light in a rear projection screen, comprising
a plurality of diffuser panels including first reflecting elements, for condensing
10 light to substantially one spot or one line, periodically provided in at least one direction
between a light incident surface and a light exiting surface, wherein
said plurality of diffuser panels overlap one another with directivities of
diffusion different from one another.

15 3. A diffuser panel for diffusing light in a rear projection screen, comprising
a diffuser panel including first reflecting elements, for condensing light to
substantially one spot or one line, periodically provided in at least one direction between
a light incident surface and a light exiting surface, wherein
said first reflecting elements are a plurality of types of reflection regions having
20 different directivities of diffusion provided periodically.

4. The diffuser panel according to claim 1, wherein
said first reflecting elements are periodically provided at an interval smaller
than a pixel size in the direction that said first reflecting elements are provided.

5. The diffuser panel according to claim 1, further comprising second reflecting elements for bending principal axes of light rays reflected from said first reflecting elements to the direction of the normal to said light exiting surface.

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6. The diffuser panel according to claim 1, wherein said first reflecting elements are each partly formed in a quadric surface having a focal point.

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7. The diffuser panel according to claim 5, further comprising curved reflecting mirrors, each having a concave mirror part on an inner surface thereof and a convex mirror part on an outer surface thereof, wherein each of said first reflecting elements is said concave mirror part, and each of said second reflecting elements is said convex mirror part, and

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a light ray reflected from one of said first reflecting elements of one of said reflecting mirrors is reflected from one of said second reflecting elements of an adjacent one of said reflecting mirrors.

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8. The diffuser panel according to claim 1, further comprising a light absorbing member in a region through which no projected light ray passes.

9. The diffuser panel according to claim 8, wherein said light absorbing member is provided on said light exiting surface.

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10. The diffuser panel according to claim 1, further comprising
a transparent portion mixed with a light diffusion material.

5 11. The diffuser panel according to claim 1, wherein
said first reflecting elements are formed of a metal film.

12. The diffuser panel according to claim 5, wherein
said second reflecting elements are formed of a metal film.

10 13. The diffuser panel according to claim 1, further comprising
a reflection reducing member on at least one of said light incident surface and
said light exiting surface.

15 14. The diffuser panel according to claim 1, further comprising
a neutral density colored layer.

15 15. The diffuser panel according to claim 5, wherein
at least either of said first reflecting elements and said second reflecting
elements are enclosed by a transparent medium.

20 16. The diffuser panel according to claim 1, wherein
at least one of said light incident surface and said light exiting surface has a flat
region.

25 17. A rear projection screen, wherein

said light incident surface of said diffuser panel for a rear projection screen recited in claim 1 is formed flat, and

a Flesnel lens is provided on said light incident surface.

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18. The diffuser panel according to claim 1, wherein

a flat member is joined integrally with at least one of said light incident surface and said light exiting surface.